

Remarks

Claims 1-27 are pending in the application.

Claims 1-27 are rejected.

Claims 1-7, 25 and 26 are rejected under 35 U.S.C. 102(e).

Claims 8, 18-22 and 24 are rejected under 35 U.S.C. 103(a).

Claims 15-17 are rejected under 35 U.S.C. 103(a).

Claims 9-14 and 27 are rejected under 35 U.S.C. 103(a).

Claim Rejections – 35 U.S.C. § 102

Claims 1-7, 25 and 26 are rejected under 35 U.S.C. 102 (e) as being anticipated by Iwakiri, *et al.* (6,377,866).

Claim Rejections – 35 U.S.C. § 103

Claims 8, 18-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwakiri *et al.* (6,377,866) in view of Schemmel *et al.* (5,943,551).

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwakiri *et al.* (6,377,866) in combination with Schemmel *et al.* (5,943,551) and in further view of Caldwell *et al.* (5,575,136).

Claims 9-14 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwakiri *et al.* (6,377,866) in combination with Schemmel *et al.* (5,943,551) and in further view of Akamatsu (5,768,290).

This amendment is responsive to the Office Action mailed November 17, 2004. In that action the Examiner acted on the claims as outlined above. Applicant appreciates the telephone interview conducted by the Examiner and the Primary Examiner with the undersigned on February 8, 2005.

As a result of that interview, applicant gave further consideration to the primary reference Iwakiri *et al.* As applicant understands the Examiner's view of this reference, a computer keyboard is used to input information that controls an engraving laser, which engraves the input information on a semiconductor wafer. The engraved information on the wafer is read by a camera, which displays an image on a monitor. As set forth in column 3 at about line 26 *et seq.*, the input engraving information and the identification read by the camera are compared in an information processing device.

Applicant understands that the Examiner considers this to inherently disclose optical character recognition of the information read from the wafer. More specifically, the Examiner said in the November 17, 2004, Office Action on page 3 that Figure 2 of Iwakiri *et*

al. discloses “comparing the character data to the reference character set.” Applicant respectfully traverses the Examiner’s conclusion that Iwakiri *et al.* discloses optical character recognition and especially traverses the statement that it discloses comparing character data to a reference character set.

As can be seen in Fig. 2, step 5 is simply labeled *Comparing*. But neither the diagram nor the disclosure describes what exactly is being compared.

What is more, the comparison does not result in a determination that recognized characters are the same or not. Rather, the next step decides “[i]f the compared result is within the predetermined allowance, giving instructions for sending the engraved wafer to the lapping step (S₆), and calculating the error and inputting the error information for modifying the engraving to the engraving device body (S₇).” Iwakiri *et al.*, Col. 3, Li. 47 *et seq.*

Put differently, this comparison produces an error signal that modifies the engraving process to improve it—even when the information engraved on the wafer is considered acceptable. If, on the other hand, “the compared result is not within the predetermined allowance, terminating the instructions for sending the engraved wafer to the lapping step (S₈) and stopping the engraving (S₉).” *Id.* at Li. 52 *et seq.*

Clearly the Iwakiri *et al.* system is not comparing recognized characters with a character set and then producing an acceptable/unacceptable decision based on the comparison. Because there are different grades of acceptable readings, Iwakiri *et al.* is most likely making image comparisons of bar codes and generating error signals that can be used to improve the engraving process, or—if outside of a predetermined allowance—rejecting the markings on the wafer and stopping the engraving process.

Even though applicant believes the rejections based on Iwakiri *et al.* are not well founded, each of the independent claims is now amended to further distinguish applicant’s invention from Iwakiri *et al.* For example, claim 1 includes substantially the same amendments discussed in the February 18 interview, which focuses the process of the present invention on optical character recognition. In addition, if at least one of the characters is not recognized, the actual character markings are determined to be defective. Support for this limitation is found in the application on the paragraph beginning page 5, line 7. As a result, the invention as claimed here can detect defective characters without making any comparison, a feature not disclosed in the prior art.

In addition, in the present invention as claimed, unlike Iwakiri *et al.*, if there is not a substantially exact match, the actual character markings are determined to be defective, and if

there is a substantially exact match, the actual character markings are determined to be good. Claims 9, 15 and 18 include similar limitations. Claim 25 distinguishes Iwakiri *et al.* by focusing on whether or not there is a substantially exact match and making a determination accordingly. As noted above, Iwakiri *et al.* creates a quantified error that is used to control the engraving process to reduce the error or to stop the process and reject the marking on the wafer depending upon the magnitude of the error.

Applicant was unable to determine whether or not claim 23 was rejected and if so, under what basis. Clarification is requested in the next communication from the Examiner.

For the foregoing reasons, reconsideration and allowance of pending claims in the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,


MARGER JOHNSON & McCOLLOM, P.C.



Alan T. McCollom
Reg. No. 28,881

MARGER JOHNSON & McCOLLOM, P.C.
1030 SW Morrison Street
Portland, OR 97205
503-222-3613
Customer No. 20575

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Li Mei Vermilya